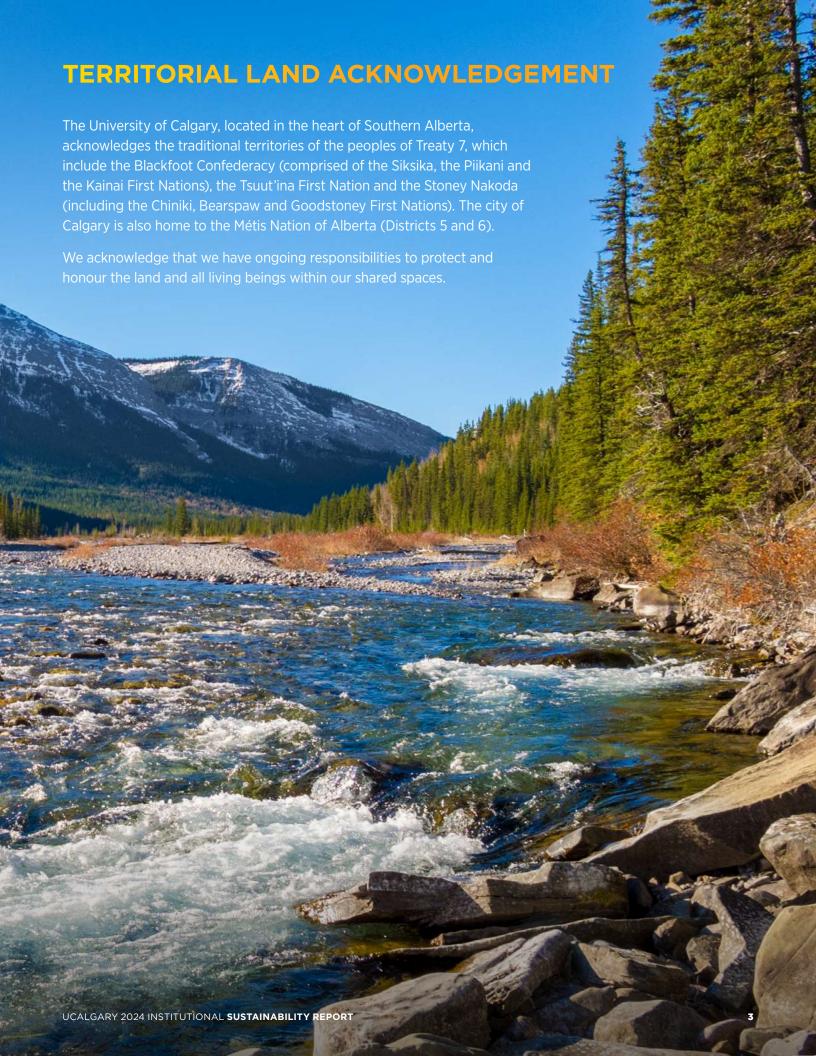


# 2024 INSTITUTIONAL SUSTAINABILITY REPORT

Innovating Today for a **Better Tomorrow** 

# **CONTENTS**

**Territorial Land Acknowledgement** 3 **Presidential Message About This Report** 5 **Academic Innovation:** 6 **Teaching, Learning and Student Experience Research and Innovation** 12 19 **Faculty Highlights Campus and Community Engagement** 22 **Sustainable Campus** 30 **Awards and Certifications 37** UCALGARY 2024 INSTITUTIONAL SUSTAINABILITY REPORT



#### PRESIDENTIAL MESSAGE

# The University of Calgary thrives on innovation and entrepreneurial thinking.

More than ever, such skills are needed around the world to address the increasingly complex challenges with far-reaching impacts on society, the environment and global economies. We are committed to research innovation to tackle society's biggest issues and a future-focused university education to prepare graduates for the growing demand in sustainability knowledge, skills and mindsets.

For more than a decade, the UCalgary community has been at the forefront of promoting sustainability. Our collective efforts, spanning all faculties and campus administration, have led to significant changes that positively impact people, places and the planet, reflecting our shared commitment to a sustainable future.

Welcome to the University of Calgary's 14<sup>th</sup> *Institutional Sustainability Report*, celebrating actions across our diverse campus community that contribute to sustainability. I am grateful for the significant efforts accomplished by our students, faculty, staff, alumni and community partners in working together to spark positive change.

It is an ongoing privilege to collaborate with Traditional Knowledge Holders from the Treaty 7 region, as we work together towards our shared sustainability goals. We are also deeply grateful for the invaluable support from our community and industry partners, particularly Calgary's dynamic innovation sector.

These unified efforts have solidified UCalgary's reputation as a globally recognized institution for sustainability. This year, our institution was ranked in the top three per cent of 1,963 global research universities participating in the *Times Higher Education*'s Impact Ranking. This marks the fifth consecutive year that we have been ranked in the top five per cent for progress in advancing the UN Sustainable Development Goals. UCalgary also placed among the top five per cent of more than 1,400 global universities participating in the Quacquarelli Symonds (QS) World Sustainability Rankings.

Looking ahead of tomorrow, UCalgary will continue to advance sustainability as a campus community and through our partnerships. We will continue to learn from experts to better our practices while creating accessible knowledge to support others in their sustainable journeys.

Based on our campus community's sustainability progress to date, I am excited to see how far we can surpass today's limitations to build a healthier, cleaner and more equitable future for all.

Dr. Ed McCauley, PhD, FRSC

President and Vice-Chancellor University of Calgary



#### **ABOUT THIS REPORT**

The University of Calgary's long-term foundational commitment to Equity, Diversity, Inclusion and Accessibility (EDIA); Global Engagement; Indigenous Engagement; Mental Health and Well-Being; and Sustainability are woven into the fabric of our institution. We recognize the interconnectedness of these foundational commitments and work collaboratively to create a just and caring community, living interdependently with one another and all our relations in the natural world. Through these foundational commitments, we advance reconciliation and work together to transform systemic inequities to create a just, sustainable and thriving future for present and future generations.

The 2024 *Institutional Sustainability Report* (ISR) spotlights actions taken in teaching and learning, research and innovation, campus and community engagement, and sustainable campus practices. These efforts support the goals outlined in UCalgary's *Institutional Sustainability Strategy* and contribute to the advancement of the 17 United Nations Sustainable Development Goals (UN SDGs). This report highlights select achievements led by our campus community during the 2023-24 reporting period and reflects a small sample of the many endeavours across our campus.





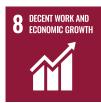
































On each page of this report, you will notice small SDG 'icons' (example below) as visual reference to the connections between UCalgary's work, and one or more of the UN SDGs.



# ACADEMIC INNOVATION: TEACHING, LEARNING AND STUDENT EXPERIENCE

"Education for sustainable development (ESD) gives learners of all ages the knowledge, skills, values, and agency to address interconnected global challenges including climate change, loss of biodiversity, unsustainable use of resources, and inequality. It empowers learners of all ages to make informed decisions and take individual and collective action to change society and care for the planet. ESD is a lifelong learning process and an integral part of quality education. It enhances the cognitive, socio-emotional, and behavioural dimensions of learning and encompasses learning content and outcomes, pedagogy, and the learning environment itself."

- United Nations Educational Scientific and Cultural Organization (2023)



## **Advancing Sustainability Education**

UCalgary is committed to increasing access to impactful future-focused education that emphasizes the importance of entrepreneurial learning, applied practice and project-based learning for sustainability. We aim to graduate students who possess a sophisticated understanding of the complex nature of the solutions needed to address global challenges effectively.



Over 19.800 UCALGARY **STUDENTS** took at least one or more SUSTAINABILITY-RELATED COURSES

in 2023-24



to UCalgary undergraduate and graduate students



UCalgary facilitates access to education on the many dimensions of sustainability. This year, the Faculty of Law added a new two-week immersive course exploring Modern Treaties and the Law. The program takes students to the Yukon to explore Indigenous self-government and modern treaties. Additionally, the Faculty of Social Work has introduced a graduate certificate in Community-Informed Practice for Health and Well-being. This program aims to equip social workers to approach mental health challenges with a holistic, community-informed approach.

















#### **Providing Future-Focused Content** for Lifelong Learners

Two new UCalgary continuing education credentials include the Towards Truth & Reconciliation Certificate and the Subsurface Evaluation for Clean Energy (SECE) digital badge, designed to impart learning outcomes that meet anticipated industry demands in social justice and renewable energy transitions. The competencies delivered through these courses will provide lifelong learners with sustainability skillsets, equipping professional changemakers with competitive working knowledge aligned to markets encouraging sustainable values.











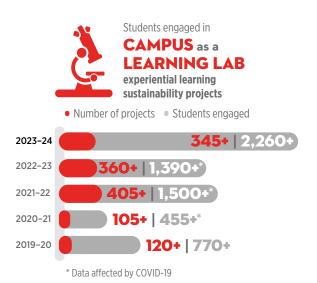
# **Enriching Sustainability-Focused Experiential Learning**

At UCalgary, learning transcends traditional lectures and essays. Through experiential learning (EL) in the classroom and beyond, UCalgary empowers students to apply critical thinking and problem-solving skills. EL pathways connect students with industry and community opportunities, preparing them for current and future career paths.

# Applying Experiential Learning to Campus Sustainability

The UCalgary Campus as a Learning Lab (CLL) initiative continues to expand the opportunity for students to deepen their understanding of sustainability through EL on campus. CLL brings students, faculty and staff together to apply sustainability theory to campus-sustainability challenges. For example, through a Sustainable Energy Development (SEDV) capstone project, student Sami Mondal worked with UCalgary's Spy Hill campus to explore economic, environmental and energy opportunities associated with the 800 tonnes of organic waste generated annually by the Spy Hill campus. Mondal's research identified that utilizing an anaerobic digester could turn the organic waste into 112 MW/year of power.





#### Expanding Work-Integrated Learning for Students

The Schulich School of Engineering and Haskayne School of Business have each expanded their paid graduate-level internship programs to gain work-integrated learning (WIL) and stand out in the marketplace. The paid MEng Internship Program immerses engineering students with companies navigating sustainable improvements and transitions across energy, production and chemical industries. The Haskayne Propel Business Program was extended to the MBA program, growing the exposure of students of diverse backgrounds to EDIA, sustainability and innovation within emerging industries.





## **Increasing Access to Education**

UCalgary is dedicated to diversifying services, programs and support systems to meet the unique and emerging needs of students. We strive to extend educational participation across communities through flexible teaching methods and innovative supports to increase access to sustainability-focused education and sustainably grow our campus.

#### DID YOU KNOW? -

UCalgary offers over
15 sustainability related degree programs.



#### Over 1,510 QUALITY EDUCATION, GENDER EQUALITY and REDUCED INEQUALITIES RESEARCH PUBLICATIONS\*

\*2022 year for SDGs 4, 5, 10. Provided by *Times Higher Education*, using SDG-related keywords and Elsevier



#### **Rural Community-Centred Degrees and Practicums**

UCalgary faculties are addressing the growing need for services in rural communities, with a specific focus on the development and retention of local certified professionals. The Werklund School of Education and Northern Lights College have partnered to launch a joint teaching program predicated on local delivery and EL within northern communities. The program allows students to remain in the region and supports the development and retention of local certified professionals. Additionally, the faculties of Social Work and Nursing are piloting virtual practicum projects to expand students' practicum opportunities and skills to meet the health and wellness needs in rural communities like Beaverlodge, Alta.

3

ļ

10

11

16

17

#### First-Generation Scholars Program

As part of its new 2023-2030 strategic plan, Ahead of Tomorrow, UCalgary launched the First-Generation Scholars Program offering financial support, mentorship, advising and networking opportunities for students who are the first in their families to attend university. Additionally, UCalgary offers specialized support through the myLibrarian program, which helps students to navigate research libraries. In this program, students are paired with library staff who share lived experiences and provide insider information on upcoming events and library research guidance.

What we've gone to now is this concept of 'grow your own teacher,' which means, take those people in your community who have a connection to the people and to the land and who are invested in the community, and find a way for them to do a Bachelor of Education that isn't going to uproot their entire lives."

 Dr. Amy Burns PhD, Associate Dean of Undergraduate Programs (Werklund School of Education)

# Global Horizons: Empowering UCalgary Students

<u>UCalgary International</u> (UCI) leads international learning experiences on campus for students, staff and faculty. These experiences offer opportunities to engage with global communities of practice, gain diverse perspectives and contribute knowledge in new settings. In 2023-24, more than 620 students participated in academic global learning programming through UCI in more than 25 countries.

#### Some recent UCI programs include:

- Community and Sustainable Development in India:
- Environmental and Urban Sustainability in Southeast Asia;
- East Anglia Summer Program;
- and Nanyang Technological University Exchange.

Annually, UCI supports dozens of students from underrepresented and equity-deserving groups through the Global Access Fund. Additionally, UCI administers other funding programs such as the Global Indigenous Skills (GIS) fund, making international learning opportunities for students as accessible as possible. These scholarships facilitate cross-cultural exchanges, promoting our campus as a hub for international discourse on cross-cultural views, values and ways of knowing.



UCI, with support from the <u>Global Skills Opportunity</u>, organized a new <u>Pre-Departure Orientation event</u>, attended by more than 230 students. This conference-style event featured presentations on student financial health, personal well-being and strategies to reduce the impact of travel. The goal was to encourage students to make their international experience more sustainable — for the environment, the communities they visit and for themselves.







10

12

17

My semester abroad allowed me to explore a culture that's embedded with the ideology of work-life balance. The city is built around nature, rather than nature being built around the city. Every day you could see people hiking, biking and running. Living in Norway broadened my views on how I wish to live, and in which type of society I wish to live."

— Simran Sidhwani,

BKin'23 (Honours), Exchange to Norwegian School of Sport Sciences

#### **ADDITIONAL STORIES**

#### The Inaugural Violet King Engaged Scholar Award

A new academic award has been launched in honour of Violet King, celebrating underrepresented students' talents, and recognizing the socioeconomic challenges underrepresented students face, to increase equity through financial support.



# Personal reflection brings STEM education beyond formula

An innovative project, jointly facilitated by the Werklund School of Education and Faculty of Science, is evaluating opportunities to expand the teaching structure of STEM (science, technology, engineering, mathematics) courses through incorporating empathy and emotion, encouraging a more holistic teaching method.



#### **Expanding the Indigenous Pathways Program**

The Faculty of Arts and the Faculty of Science launched new Indigenous Pathways programs in Fall 2023. These programs aim to provide more equitable access to degree program for Indigenous scholars. They offer supportive pathways and resources, such as the <u>Indigenous Student Access Program</u> and <u>Writing Symbols Lodge</u>. Through these initiatives, students develop holistic skills that empower them as successful learners and active community members.



#### Map the System crowns UCalgary winners

The Hunter Hub of Entrepreneurial Thinking hosts the campus finals for the global competition, <u>Map the System</u>, which explores social or environmental challenges. This year, the top three UCalgary teams investigated topics such as systemic barriers in post-secondary education, the housing security crisis and challenges faced by Canadian women in academia.





# Schulich's Women in Engineering Day sets new attendance record

The annual UCalgary Schulich's Women in Engineering Day achieved a record-breaking audience of more than 300 secondary school students. This event celebrated women in engineering to inspire future scholars and address the historic gender imbalance in STEM.

4 5 8 10 11 16

# UCalgary and Ugandan students share valuable experience in community engagement and health promotion

The Mbarara University of Science and Technology welcomed a cohort of UCalgary students for a four-week EL field school for medicine in rural Uganda, building a deeper understanding of global health care and unique challenges faced in sustainable medical development and delivery.





# **Addressing Global Challenges Through Interdisciplinary and Transdisciplinary Research**

Communities lean on universities to develop innovative approaches and offer sustainable solutions for urgent societal challenges. UCalgary is committing resources, developing capacity, and enabling collaboration across our campuses and communities to ensure research meets community needs.



#### Over 2,550 CLEAN ENERGY and CLIMATE ACTION **RESEARCH PUBLICATIONS\***

\*2022 year for SDGs 7, 13. Provided by *Times Higher* Education, using SDG-related keywords and Elsevier



#### Over 7.900 GOOD HEALTH and WELL-BEING RESEARCH **PUBLICATIONS\***

\*2022 year for SDG 3. Provided by Times Higher Education, using SDG-related keywords and Elsevier



#### **Institutes for Transdisciplinary Scholarship**

As society evolves and technologies advance, the need to address complex issues and problems grows — most often those with a social dimension. The Institutes for Transdisciplinary Scholarship (ITS) at UCalgary provides a connection point for research institutes and individual scholars to come together.

The ITS offers resources and a collective approach to societal challenges and opportunities by facilitating collaboration, co-learning and knowledge transformation, bringing together scholars from other faculties and non-academic partners to develop integrated knowledge and create impact.

The ITS has five areas of focus — Cities and Societies: Digital Worlds: Energy Futures: Health and Life; and Democracy, Justice and Sustainability — that intersect all focus areas by interpreting justice, democracy, freedom, autonomy, pluralism, anti-racism and decolonization through the lens of sustainability and the UN SDGs.





#### **Redefining the Intersection of Agriculture** and Renewable Energy

A transformative collaboration between UCalgary and local industry partner Solartility Inc. is set to revolutionize the intersection of agriculture and renewable energy. Researchers from the faculties of Veterinary Medicine, Science and the Schulich School of Engineering are collaborating on this project, which was announced at COP 28 in Dubai and received \$3.1 million in funding from Emissions Reduction Alberta (ERA). It aims to establish an agrivoltaics research facility. In this innovative approach, solar panels are strategically positioned alongside agricultural activities and cattle ranching. Ranchers stand to benefit from this dual use of land: solar panels generate new revenue while cattle continue to graze, maintaining the original revenue source.





#### **Achieving Sustainability of High Mountain Waters**

High mountain waters contribute to 70 per cent of Earth's freshwater resources, yet these critical mountain water sources — such as the Canadian Rockies snowpacks and glaciers — are under threat from climate change, resulting in the rapid melting of these frozen reserves.

Hosted by UCalgary, the <u>UNESCO Chair in Mountain Water Sustainability</u> is addressing this challenge by bridging geographic regions, disciplines, research methods and voices to better understand changing water resources in high mountain regions. This research chair will develop timely solutions towards sustainable water management by proactively working with local mountain-based communities and relevant stakeholders to increase the resilience of communities reliant on mountain waters across the globe.



\*2022 year SDGs 2, 6, 14, 15. Provided by *Times Higher Education*, using SDG-related keywords and Elsevier







15



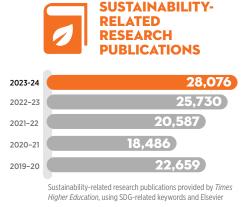


This chair represents a great opportunity to recognize the interdependencies that exist between water and people and to work with communities to build on and share locally appropriate sustainable solutions for a more equitable and sustainable world."

Dr. Corinne Schuster-Wallace, PhD,
 UNESCO Chairholder

## **Collaborating for Sustainability Innovation**

At UCalgary, we recognize that collaboration and partnership sparks innovation, empowering us to tackle complex world challenges. In response to the rapidly changing global landscape, researchers at UCalgary are proactively seeking partnerships and solutions to advance sustainability action and make a positive impact in the world around us.





Over 13.330 PEACE JUSTICE. STRONG INSTITUTIONS and COMMUNITY PARTNERSHIPS RESEARCH PUBLICATIONS'

\*2022 year for SDGs 16, 17. Provided by Times Higher Education, using SDG-related keywords and Elsevier

#### **National Science Foundation Global Centers Initiative**

Collaborating on climate action is critical to accelerate action and achieve climate change solutions. As part of the National Science Foundation Global Centers initiative, UCalgary researchers are working with international partners to address the challenges related to climate change and clean energy. This includes the establishment of two global centres: the U.S.-Canada Centre on Climate-Resilient Western Interconnected Grid, co-led by UCalgary; and the Global Hydrogen Production Technologies Centre, where UCalgary co-leads the water electrolysis technology area.





#### UCalgary and Luna Child and Youth **Advocacy Centre**

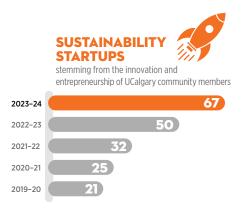
A partnership between UCalgary Social Work and Luna Centre is taking important steps to enhance the well-being of young people. Together with other child and youth-advocacy centres across Canada, Luna and UCalgary have embarked on an innovative project to create a nationwide research and knowledge hub for child advocacy. This groundbreaking initiative aims to bridge the gap between research and practical front-line work. By connecting evidence-based research to realworld application, the hub is positioned to improve outcomes for children who have experienced abuse.



Practitioners don't necessarily know the research process, and researchers don't necessarily understand the lived context. The richness of this comes when you put them in the same room; that's the value of this partnership."

# **Growing an Innovation Ecosystem for Sustainability**

UCalgary is a top startup creator in Canada. Our commitment to research and innovation serves as a catalyst for bridging the gap between academia and industry, ensuring discoveries translate to real-world solutions.





#### Over 830 ECONOMIC GROWTH, INNOVATION and SUSTAINABLE CONSUMPTION RESEARCH PUBLICATIONS\*

\*2021 year. Provided by *Times Higher Education*, using SDG-related keywords and Elsevier

#### **UCeed Investment Fund**

<u>UCeed</u> is just one of the many ways the university is connecting with industry to drive change. Launched in 2020, UCeed became Canada's largest university-based investment fund with a mission to boost the economy and drive innovation in Calgary and beyond. This early stage startup investment fund propels critical and problem-solving research. Since its creation, the philanthropically driven pre-seed fund has made tremendous impact on the health and well-being of people while fuelling the economy. UCeed has established six funds: Health Fund, Child Health and Wellness Fund, Social Impact Fund, Haskayne Student Fund, Energy Fund, and Neuro Fund.



With the support of the UCeed Health Fund, UCalgary alums are enhancing access to health care for underserved communities. <u>PurposeMed</u> is a growing virtual health platform that connects patients with specialized clinicians to receive compassionate care from home. For marginalized communities that experience unfair treatment in traditional health-care settings, such as the LGBTQ2S+ community, virtual care can be a safer and accessible alternative, which is something that PurposeMed provides.



#### **Tackling climate change with PEACH DACquiri**

PEACH DACquiri Inc. is making significant strides to potentially address climate change through its proposed large-scale carbon dioxide (CO2)-removal technology. The technology is being developed with scale-up and economic assessment underway. The team is diverse and transdisciplinary with members from Schulich School of Engineering and the Science and Law faculties, with female leadership. The project has won two awards from the Scotiabank Climate Change Fund and is also developing applications that could be applied to saline water-disposal systems in Alberta's oil and gas industry.

5 7 9 10 12 13 14



# United Nations University Hub at UCalgary

UCalgary proudly hosts the world's first <u>United Nations</u> <u>University (UNU) Hub</u>, in partnership with the <u>UNU Institute</u> <u>of Water, Environment and Health (UNU-INWEH)</u>. The UNU-INWEH is dedicated to synergizing transdisciplinary efforts to tackle the greatest sustainability problems faced by society, with a specific focus on empowering communities to address the global water crisis and the associated health, gender and climate-change impacts.

Fully named the UNU Hub on Empowering Communities to Adapt to Environmental and Climate Change, the Hub will collaborate with UNU-INWEH to develop the scientific understanding, solutions and skilled workforce required to mitigate and adapt to climate threats that affect ecosystems, economies, personal safety and ways of life.

The partnership situates UCalgary as a leader in water sustainability and as a catalyst to integrate, translate and mobilize knowledge from global research efforts, generating effective solutions that will direct global policy and practice. The global stature of the hub ensures knowledge generated will be accessible and applicable beyond Canada extending to the Global South.





11

12

13

14

4

17



#### **ADDITIONAL STORIES**

# Two doctoral students recognized for redefining and reimagining future of mental health-care access and environmental justice

Two scholars from the Faculty of Social Work and Department of Sociology were awarded the international Killam Scholarship for their efforts in championing historically marginalized groups to access the mental health care they require and in contributing to the global climate crisis.





#### Home is at the heart of neonatal intensive care

Alberta Health Services has implemented the Alberta Family Integrated Care (FICare) model, a gold-standard model for neonatal treatment that positively transforms the outcome for pre-term babies, developed by interdisciplinary teams from the Faculty of Nursing and the departments of Pediatrics and Community Health Sciences.



# Transdisciplinary exhibit highlights water expertise across fields

Connecting ideas between traditional academics and arts creates an immersive method to understand concepts from through multiple learning styles. The BRACKISH event illustrates this concept through shared topics from the faculties of Arts and Science and the School of Architecture, Planning, & Landscape.





# The Alberta Digitalization Agriculture program (ABDIAG)

The Simpson Centre for Food and Agricultural Policy at the School of Public Policy is leading the program and will investigate challenges and opportunities in the digitalization of agriculture and develop policy recommendations in the agri-food space to help make agricultural production more efficient, cost-effective and sustainable.



# UCalgary students enhancing accessibility to mental health treatment

To address the stigma surrounding mental health treatment, six students from Faculty of Graduate Studies, Schulich School of Engineering, Cumming School of Medicine, and Haskayne School of Business have developed an innovative virtual reality (VR) mental health platform.

3 4

#### Addressing racial bias in technology

In collaboration with the Alberta Civil Liberties Research Centre, a UCalgary Law professor is developing a framework to address the effects of Al-based facial-recognition technology, particularly its impact on race, gender and privacy.



# FACULTY HIGHLIGHTS

UCalgary faculty actively promote sustainability through innovative teaching and research. Their unique contributions advance institutional and societal goals, including enhancing sustainability education, raising awareness of global challenges and designing solutions informed by multidisciplinary, interdisciplinary, and transdisciplinary research to address these issues.

#### **Cumming School of Medicine**

The Inclusive Governance Project is co-designing a new governance model for the Cumming School of Medicine (CSM). This model prioritizes equity-deserving, rural and Indigenous communities to better align CSM research, innovation, education and service with their needs. More than 250 individuals from diverse groups are actively engaged in this process. By bridging geographical, cultural and generational divides, the project amplifies traditionally overlooked voices, fostering collaboration and effective community-focused decision-making within CSM.

3 8 10 16

#### **Faculty of Arts**

The Faculty of Arts engages in interdisciplinary and transdisciplinary research that explores the connections between unsustainable practices and people and societies. Research efforts promote sustainability, understanding root causes of unsustainable practice and studying impacts on human populations. Current studies include topics such as the impact of oil plantations and civil conflict in Indonesia, understanding the effects of carbon pricing on vulnerable populations, and the influence of exploring renewables energy on Alberta's electricity market.

1 7 8 9 12 13 16

#### **Faculty of Graduate Studies**

The ability to conduct transdisciplinary research that transcends disciplinary boundaries is an exciting new opportunity for graduate students. The graduate programs that are currently being developed in transdisciplinary scholarship, will empower and support our graduate students to tackle complex contemporary issues that challenge our societies, communities, and planet.

4 7 8 13 17

#### **Faculty of Kinesiology**

In its newly unveiled strategic plan, <u>Together Stronger</u>, the faculty outlines initiatives to leverage the Joan Snyder Fund for Excellence — a generous gift of \$30 million — and establish global leadership in research with under-represented women and girls among other strategies to enhance the production and impact of research through collaboration.

4 5 10

#### **Faculty of Nursing**

The Faculty of Nursing has launched the new <u>HIVE</u> (<u>Health InnoVatEd</u>) initiative with goals to co-create and mobilize innovative, evidence-informed solutions that promote health and health-care accessibility. The HIVE encourages transdisciplinary collaboration, inviting students, faculty and staff from across campus to work with nurses. The initiative focuses on building capacity for innovation and transformation by developing trainees, advancing curriculum, enhancing competencies and fostering leadership.



#### **Faculty of Law**

The Faculty of Law offers students a unique opportunity to engage with legal change related to national-level sustainability policy during two policy labs. Law 623 (Environmental Impact Assessment Law) students explore provincial- and national-level policies related to environmental, social and governance (ESG) reporting in Nova Scotia, as well as the constitutionality of the federal *Impact Assessment Act*. This practical experience enhances students' understanding of sustainability principles through critical application of theory and knowledge while analyzing highly impactful legal changes.



#### **Faculty of Science**

In Fall 2023, the Department of Geoscience was renamed the Department of Earth, Energy and Environment. The change includes a broadening of focus to meet critical contemporary issues, from mitigating climate change and natural hazards to developing sustainable energy, food and water systems. New courses, degrees and curricula produced by the change will integrate a transdisciplinary framework that utilizes modern teaching and research practices focused on pertinent and future-focused topics.

#### **Faculty of Social Work**

The Faculty of Social Work has launched a new innovative Non-Profit Leadership Development

Program to support and build Calgary's non-profit community. The program covers governance, sustainability, collaboration, financial sustainability and individual leadership philosophy. Participants develop competencies to lead a strong team internally, as well as successfully collaborate with external community partners and citizens.



#### **Faculty of Veterinary Medicine**

UCalgary's Faculty of Veterinary Medicine collaborates with Indigenous communities to convene preventive veterinary clinic events for the Stoney Nakoda, Tsuut'ina and Siksika Nations, fostering knowledgesharing and community engagement. The care provided through these clinics benefits pets, working animals and livestock in communities historically lacking access to sufficient veterinary care, creating a significant impact on animal health and community well-being.



#### **Haskayne School of Business**

In collaboration with the <u>SDGs-in-the-Classroom</u> <u>Toolkit at York University</u>, the Haskayne School of Business provides academic resources for business instructors and students eager to infuse the SDGs into teaching and learning. The content includes case studies, classroom support, formal reports, lesson plans, short readings and videos. The Toolkit is housed in UCalgary's <u>Open Education Resources (OER)</u> collection, ensuring that anyone can access the toolkit as a resource to expand sustainability in teaching.



#### **School of Architecture, Planning and Landscape**

A new initiative of the School of Architecture, Planning and Landscape (SAPL), funded by the Alberta Real Estate Federation, aims to increase the representation of First Nations, Inuit and Métis students in design professions. By partnering with Knowledge Keepers and Indigenous experts, SAPL will integrate Indigenous world views, cultural practices and sustainable approaches into the Bachelor of Design in Computational Intelligence (BDCI) program and graduate programs. Additionally, the grant will fund outreach activities to educate Indigenous students about potential careers in architecture, planning and landscape architecture.





#### **School of Public Policy**

The Canadian Climate Policy Partnership (C2P2) is a research initiative focused on climate policy in Canada. C2P2 collaborates with various partners, including the Canadian Climate Institute, the Government of British Columbia, Quebec NetPositif, Royal Roads University and the Smart Prosperity Institute. Its goal is to create a comprehensive database of emissions-reduction policies across Canada at various governmental levels. By simplifying access to publicly available data, C2P2 contributes to improved public understanding and policy development to accelerate action on climate change.

#### **Schulich School of Engineering**

Sustainability engineering integrates environmental, economic and social sustainability into all engineering disciplines. Schulich is advancing how we can imagine, design and build a regenerative future, with a focus on creating a cleaner, healthier planet. The School's 2023-2027 strategic plan, Schulich Momentum, emphasizes expanding access to inclusivity in engineering along with futurefocused teaching and research models addressing global challenges like renewable energy and responsible production.





#### **Werklund School of Education**

The Werklund School of Education offers cocurricular programs that enhance students' education. These experiences cover leadership development, cross-cultural competencies, mentorship and reflective practice. Integrating Indigenous landbased pedagogy provides transformative learning beyond the classroom, honouring the wisdom of the land. Professional opportunities connect pre-service teachers with experienced educators, preparing them for their teaching careers.











# CAMPUS AND COMMUNITY ENGAGEMENT

"UCalgary's Community Plan is a dynamic blueprint that places the community at the centre of our endeavours. With a profound connection to our place on Treaty 7 lands, the vibrant city of Calgary, the diverse country of Canada, and the ever-evolving global stage, we commit to navigating shared concerns and seizing shared opportunities. We partner with our many communities, supporters, and donors to ensure that the work we do is relevant to the needs of society."

- UCalgary 2023-2030 Strategic Plan - Community Plan



# **Convening Dialogue on Local and Global Challenges**

At UCalgary, our core values and commitment to sustainability inform how our campus community works with the broader community to help build resilient, thriving and inclusive societies. By facilitating productive engagement on campus and with our many community partners, UCalgary is helping to advance the knowledge, skills and abilities necessary to meet the aspirations of the 17 UN SDGs.

# Antimicrobial Resistance: A One Health Approach Seminar

Each year, 20,000 Canadians contract resistant infections in hospitals. The direct medical costs due to antimicrobial resistance (AMR) exceed \$250 million. The 2023 Fall Antimicrobial Resistance: A One Health Approach Seminar, hosted by UCalgary, featured 30 instructors from various institutions with different backgrounds and expertise such as universities, medical facilities and government units. They discussed practical approaches to address AMR issues in a wider context, emphasizing sustainability and control strategies.

3 4 6

1

11

14

15

1



#### **Mobilizing Alberta**

The Mobilizing Alberta (MA) initiative aims to increase engagement on climate change in Southern Alberta. This past year, UCalgary awarded \$500,000 to innovative, equitycentred experiential-learning projects involving partnerships between community organizations and UCalgary faculty and students. Current projects are diverse and range from offering educational programming to low-income households facing energy poverty, to monitoring key climate-change indicators through a program inspired by the traditional Piikani Winter Count.

4

9 1

1

13



# **Promoting Intercultural Capacity-Building**

Intercultural capacity-building supports sustainability by promoting diverse perspectives, collaboration and inclusive solutions to world challenges. The university provides various engagement and learning opportunities for the wider community and our campus to participate in community discussions, enhancing our understanding and response to complex issues affecting societies.

#### **Courageous Conversations**

This past year, the Office of Equity, Diversity and Inclusion (OEDI) launched the Courageous Conversation Speaker Series, featuring discussions on racism, anti-racism and colonialism. The series engages the campus community and beyond and is designed to inspire courageous thinking and practices aimed at transforming the legacies of colonialism, slavery and contemporary injustices. In 2023-24, more than 670 individuals across three events attended the sessions.









#### Climate Conversations speaker series

Hosted by the Office of Sustainability, in collaboration with community organizations and various UCalgary departments, Climate Conversations aims to engage the UCalgary campus community and Albertans in conversations about climate change. This speaker series promotes diverse perspectives and world views on climate change and aims to empower participants to take meaningful action in their own ways. In 2023-24, almost 400 individuals across four events attended the series.















#### **Indigenous Knowledge Lecture Series**

Hosted by the Office of Indigenous Engagement, the series highlights Knowledge Keepers, Indigenous leaders, scholars and artists. The lectures supported individuals on their journey towards reconciliation by exploring the complexity and diversity of Indigenous knowledge systems. In 2022-23, 587 individuals attended the three events in the series.













#### **One Health Circle**

One Health at UCalgary (OH@UC) is a crosscutting research theme from the Office of the Vice-President (Research). OH@UC hosts a virtual webinar series, the *One Health Circle*, which is open to the public. The webinar series covers a range of topics related to the intersection of human, animal and environmental health. During these webinars, speakers address global problems from multiple perspectives and audience questions are encouraged. In 2023-24, 405 individuals across five events attended a *One Health Circle* webinar.















# **Spotlighting Student Leadership in Sustainability**

#### **DID YOU KNOW?**

UCalgary has over 130 Students' Union clubs advancing sustainability.

#### Students' Union and Graduate Students' Association

The UCalgary <u>Students' Union (SU)</u> and <u>Graduate</u> <u>Students' Association (GSA)</u> are integral to the university community, representing the voice of all undergraduate and graduate students.

The SU and GSA have accompanied the university in its formal commitment to sustainability, in operations and administration, for nearly a decade. Recent efforts include working to address and mitigate the growing gap between the cost of living and UCalgary students. Both the SU and GSA are advocating to all levels of government to make the student food and housing crisis a priority.

The SU and GSA are also partnering on- and off-campus to address student hunger through initiatives like the SU Campus Food Bank, Campus Food Hub, Good Food Box and Grad Snacks. With students experiencing greater challenges and financial constraints, these initiatives provide valuable support to those needing assistance.





#### **Sustainable Development Goals Alliance**

The <u>Sustainable Development Goals Alliance</u> (<u>SDGA</u>) is a student-run, community-centred organization at UCalgary. The organization was founded in 2017 and works closely with students, clubs, faculty and the Office of Sustainability to provide programs, events and support for the campus community to raise awareness and action toward the UN SDGs. This supportive community aims to amplify youth voices and actions, addressing sustainability issues on both a local and global scale.

Each year, the group hosts the Sustainable
Development Goals Summit, a multi-day conference
focused on introducing students and community
members to sustainable development. Through
interactive workshops, panel discussions and
inspiring speakers, the Summit energizes the campus
community with stories, resources and connections
to amplify SDG advocacy and implementation.

4 11 12 13 17



#### Alberta's Top 30 Under 30

Six students and alumni from UCalgary received the 2024 <u>Alberta's Top 30 Under 30 award</u>. This award is given annually by the Alberta Council for Global Cooperation to recognize the efforts of young individuals who are advancing the UN SDGs.

The diverse group of students are studying a variety of academic disciplines at UCalgary and have dedicated significant work towards advancing sustainability within various fields such as gender equality, accessibility to technology, diversity in health care, conservation and more. The achievement of this award reflects their dedication to fostering meaningful sustainable action on campus and beyond.



#### **The Sustainability Leadership Innovation Program**

The Sustainability Leadership Innovation Program (SLIP) is a longitudinal leadership development program designed to enhance students' capacity to advance the United Nations' SDGs at UCalgary. Funded by a four-year, \$90,000 SU Quality Money Grant, SLIP is a collaborative effort between the Office of Sustainability and the student-led Sustainable Development Goals Alliance. The program focuses on helping students build core competencies, skills, and unique strengths to become active sustainability leaders within their local communities. This year, participants successfully launched 16 projects and hosted 27 sustainability-related events, engaging over 1,400 members of the UCalgary community, including 90 elementary school students. Examples of SLIP projects include the climate cafe series (where students meet to discuss climate anxiety and eco-grief), Fair Trade campus events and Seed Library initiatives.

2 4 8 9 10 11 13 15 16 17

# UCalgary's Pluralism Initiative

Pluralism is inextricably concerned with depolarization, bridging divides, social healing, collaborative problem-solving, social innovation and interfaith engagement. UCalgary's Pluralism Initiative, overseen by the Office of Vice President is dedicated to helping the campus, city and wider community address current social challenges.

Building on this commitment, the university organized the 2024 Pluralism Symposium, bringing together a diverse group of participants, including local policymakers, representatives from the <u>Global Centre for Pluralism</u> (a UNlevel agency), scholars and students from across the country. The symposium explored effective pluralism strategies and addressed critical societal challenges, highlighting the importance of working together to create a more inclusive and understanding society.

With support from UCalgary's Faculty of Arts, Cumming School of Medicine and the <u>Institutes for Transdisciplinary Scholarship</u>, this event showcased the university's leadership in fostering pluralism in research, innovation, teaching and learning.











#### **ADDITIONAL STORIES**

#### Indigenous Perspectives: K-12 Teaching Resources

Created by UCalgary Libraries and Cultural Resources, this public educational resource connects Indigenous perspectives to the current Alberta curriculum to complement K-12 studies. This tool helps educators respectfully incorporate Indigenous knowledge into classroom conversations.



# Careers in Sustainability and International Development

Hosted in partnership with the Office of Sustainability, UCalgary International and Career Services, this virtual networking event provides students with the opportunity to explore careers related to sustainability and international development by connecting with professionals and field experts.



#### **Campfire Chats**

In honour of National Indigenous Peoples Day, the Office of Indigenous Engagement and the Office of Communications and Community Engagement hosts Campfire Chats, an outdoor event celebrating the rich history, heritage and diversity of First Nations, Métis and Inuit communities across Canada through music.



#### **Campus Food Hub**

Located at the Crowsnest residences on UCalgary's main campus, this student-centered space is increasing accessibility and availability of affordable, nutritious foods on campus as well as improving food literacy by offering meal programs, a subsidized marketplace and numerous education opportunities.





# On-campus recovery-friendly space opens at UCalgary

This past year, the <u>UCalgary Recovery Community</u> (UCRC) opened the UCalgary Community Hub, offering substance-free events, peer-support meetings, one-to-one support with social workers and drop in space for all campus members. Since opening in early February 2024, the space has welcomed more than 200 UCalgary community members. The Hub is funded through the Office of the Provost, with Students' Union Quality Money supporting the UCRC program.



#### Campus Community Garden

UCalgary's Campus Community Garden offers gardening space to students, faculty, staff, alumni and community members, allowing them to practise sustainable agriculture. The garden is a collaborative effort of the Office of Sustainability and the University of Calgary Garden Club who facilitate, set up, and maintain productive and pesticide-free community gardening projects that welcome gardeners and visitors, promotes food security, and provides EL opportunities.

UCalgary received its Bee Campus designation from Bee City Campus in February 2020. We are proud to explore academic, community-engagement, daily operational and administrative practices that make campus more pollinator-friendly.



# SUSTAINABLE CAMPUS

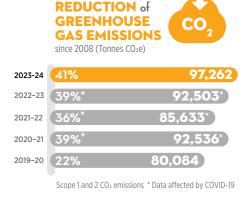
"We recognize our responsibility to safeguard the health of the ecosystems that are the foundation of life on Earth for the benefit of current and future generations. We embrace a holistic and long-range view of caring for and learning from the land, and we promote an understanding of the interconnectedness of nature and people. We recognize our responsibilities to contribute to the mitigation of climate change and the degradation of ecosystems, while also building resiliency on campus and at community scales, as we anticipate a changing and dynamic future."

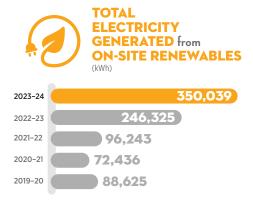
- UCalgary 2020 Main Campus Landscape Plan



## **Acting on Climate Change**

UCalgary's Climate Action Plan sets ambitious goals to reduce Scope 1 and 2 greenhouse gas (GHG) emissions 35 per cent by 2025, 50 per cent by 2030, and reach carbon-neutrality by 2050. With an impressive 41-per cent reduction in GHG reductions to date, UCalgary has surpassed its 2025 target, despite substantive growth in campus population and floor space. This represents more than 97,260 tonnes of GHG-emission reductions, equivalent to taking close to 30,000 passenger vehicles off the road for one year.





#### **Existing-Building Energy Efficiency**

From 2016 to 2024, <u>UCalgary's Utility Reduction</u>
<u>Program</u> invested more than \$34 million, including more than \$14 million in external grant contributions, in existing-building energy efficiency. This investment has provided significant benefits, including more than 33,000 tonnes of GHG-emission reductions, more than a 12-per cent reduction in energy use, and improved indoor environmental quality and comfort in more than 40 buildings. Over the duration of the program, UCalgary realized a cumulative utility cost avoidance of approximately \$30 million.

7 12 13





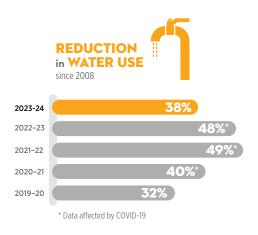
#### Renewable Energy Generation

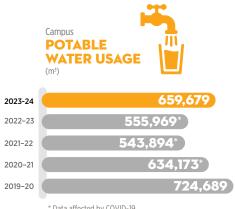
In 2023-24, UCalgary generated approximately 350,000 kilowatt-hours (kWh) of renewable energy on the main campus — enough to power about 35 homes annually. This year, a retrofit to the Social Science Building introduced a new 230 kW building-integrated solar photovoltaic (PV) system. Covering an impressive 1,100 square metres, these solar PV panels replaced the aging exterior south wall of the building, effectively serving as a new façade while generating approximately 90 percent of the electricity demand in the Social Sciences building. Learn more about other campus PV installations here.

7 9 11 12 13

# **Improving Ecosystem Health**

UCalgary recognizes the health and well-being of all species, including humans, is interconnected with the health of the environment that sustains them. We are committed to reducing the impact our campus has on natural systems while reconnecting people to nature through re-naturalized shared spaces.





#### \* Data affected by COVID-19

#### **Water Efficiency**

UCalgary is conserving water by re-naturalizing open spaces with drought-resistant native prairie species and uses non-potable water for campus irrigation. Additionally, through increasing use of raingardens we are increasing storm water infiltration on campus reducing impacts on municipal infrastructure.

Since 2008, UCalgary has reduced potable water use by 38 per cent, despite a growth of more than 11,500 campus users and approximately 21 per cent in its built area. UCalgary Design Standards promote sustainability on campus by requiring high-efficiency indoor water fixtures and promoting rainwater-reuse strategies in new projects. Over the past year, rainwater-reuse has saved more than 4.5 million litres of water, while reducing institutional water utility costs and the carbon emissions associated with water treatment.



#### **Naturalizing the Campus**

Through ongoing dialogue with Traditional Knowledge Keepers from the Treaty 7 territories, Facilities Development has implemented a planning approach for new projects that embeds their knowledge in land planning. This initiative has led to the creation of naturalized areas around the recently renovated MacKimmie Tower and Hunter Student Commons and the new Mathison Hall, integrating land stewardship principles benefiting people, nonhuman species and the environment. The Spy Hill Long Range Development Plan, developed over the past year, followed a Parallel Pathway that incorporated Traditional Knowledge and an ethical space model from the plan's inception.

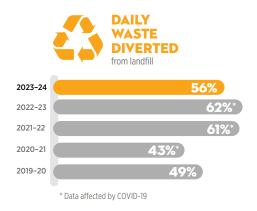




## **Reducing Consumption and Waste**

Sustainable consumption addresses the social, ecological, and economic aspects of consumption and production patterns and considers the needs of future generations. It includes life-cycle thinking and aims to decouple growth from environmental degradation.







#### **Responsible Waste Management**

Over the past year, Facilities Management conducted more than 4,000 waste audits across 53 campus buildings to evaluate the effectiveness of the many four-stream waste-management bins (trash/landfill, refundable beverage containers, mixed recyclables, compostables). The study revealed that approximately 87 per cent of the waste separation was performed correctly and identified where opportunities to improve waste separation lie. By measuring daily waste production and diversion, the university gains insights into current waste performance and will use the results to guide further actions to help UCalgary reach its aspiration to become a zero-waste campus.



#### **DID YOU KNOW?**

In 2023/24, 16,561 course completions were recorded across the 18 Environmental Health & Safety courses offered for UCalgary students, faculty and staff.



#### **Eco-Moveout**

More than 2,800 students moving out of residences over three weeks in April can generate a lot of waste. Initially developed by UCalgary students, the Eco-Moveout program promotes the circular economy by extending the life-cycle of products, redirecting items that students no longer need to people who can make use of them, reducing costs for incoming students in the process. In 2024, Eco-Moveout achieved remarkable results, diverting nearly 13 tonnes of waste from the landfill — equivalent to the weight of an adult T-Rex. The donated items will be available for new students moving into campus residences in the fall through a community-led "Free store." Textbooks collected were donated to Textbooks for Change by the UCalgary Bookstore, and non-perishable food was donated to the Calgary Food Bank.



# **Creating an Inclusive and Caring Campus Culture**

UCalgary is committed to achieving an equitable, diverse, inclusive and accessible campus. Through a holistic approach, UCalgary integrates, supports and empowers individuals, fostering positive and healthy lifestyles, mental well-being, and academic excellence. As an institution, we highly value diversity, recognizing the crucial role diverse voices play in advancing sustainability across campus.







Guided by its refreshed <u>Community Mental Health</u> <u>and Well-Being Strategy</u> (CMHWS) (formerly the <u>Campus Mental Health Strategy</u>), UCalgary remains committed to enhancing mental health and wellness. As part of this effort, UCalgary adopted the <u>National Standard for Psychological</u> <u>Health and Safety in the Workplace</u>, focusing its 13 psychological factors to promote well-being. Additionally, UCalgary's inclusion among <u>Alberta's Top 80 Employers</u> is attributed to its mental health programs and support for employees.

Wellness & Health Awareness Team (WHAT) student peer helpers provide educational opportunities related to health and wellness, along with effective strategies for student well-being and academic development. <u>UCalgaryStrong</u> fosters a supportive community through personal well-being, leadership and student engagement opportunities. Notably, the <u>Wellness Classrooms Visits</u> initiative has engaged more than 20,000 students since its inception in 2021.



#### DID YOU KNOW?

More than **2,150 attendees** took part in more than **60 UFlourish events** in 2023-24.

#### **Creating a Neurodiverse-Inclusive Campus**

An interdisciplinary team of UCalgary faculty and staff, with support from external organizations like the Sinneave Family Foundation, has teamed up with neurodiverse students to develop meaningful neuro-affirming actions that improve the campus experience and build awareness. Highlights of this collaborative effort for a campus model that effectively supports neurodivergent students holistically include sensory-friendly spaces, UFlourish events on neuro-divergency, and the Work-Integrated Learning (WIL) for Neurodiverse Students program. Actions from the Neurodiversity Support Office, advised by dedicated research, will continue developing a campus framework that best equips neurodivergent students to achieve their academic goals and realize their professional aspirations.





150+ WORKING MINDS **WORKSHOPS** on mental health, held for over 1.950+ **UCALGARY STAFF** 

since 2016



\*2022 year. Provided by *Times Higher Education* 



#### Evaluating Campus Age Inclusivity

The Brenda Stafford Centre on Aging at the O'Brien Institute for Public Health completed an assessment of UCalgary for age-friendliness. This assessment aims to advise policy and practice changes that will benefit older adults, a traditionally underserved group in post-secondary environments. The findings will provide invaluable direction for the institution to better serve the needs of ageing populations and combat ageism on campus. An action plan is currently being developed to realize these changes, providing guidance and tangible support to UCalgary faculty and administration in promoting age-inclusivity in learning and ensuring inclusive access to campus services.







**Becoming an age-friendly** university isn't just a title; it's a commitment to shaping an institutional landscape where age is not a barrier to learning, working and thriving."

> - Dr. Chantelle Zimmer, PhD, Manager, Brenda Strafford Centre on Aging

# **Built Environments for Healthy People and a Healthy Planet**

A <u>2020 study</u> by the Harvard School of Public Health estimates that, by the time we reach the age of 80, we will have spent 72 years of our life indoors. This means that buildings have a major impact on our health. <u>Studies also confirm</u> that green buildings improve one's health, cognitive function, sleep quality and more. UCalgary's commitment to healthy, high-performance green buildings not only supports well-being, it also helps our community bring their best to their academic endeavours.

In April 2024, UCalgary's <u>MacKimmie Complex</u> received Leadership in Energy and Environmental Design (LEED) Platinum certification, the highest possible LEED rating, for its sustainable design and construction. This marks UCalgary's 18th LEED-certified project, positioning UCalgary among the leading U15 institutions for green building performance. The MacKimmie Complex is also UCalgary's first project certified for Zero Carbon Building Design.

# Cumulatively, UCalgary's commitment to healthy, high-performance green buildings and 18 LEED-certified projects are providing:

- 203,319 square metres of healthy indoor environmental quality;
- 100,000 cubic metres of annual potable water-use reduction;
- 58 acres of improved ecosystem health through onsite rainwater management and native and adaptive species;
- 20,000 megawatt hours of (site) energy-use reduction over design; and
- Over 7,500 tonnes of avoided greenhouse gas emissions.

7

9

11

12

13

# **AWARDS AND CERTIFICATIONS**



TOP 5% GLOBALLY for advancing the U.N. SUSTAINABLE DEVELOPMENT GOALS for the PAST 5 YEARS



TOP 5% GLOBALLY for commitment to tackling critical ENVIRONMENTAL, SOCIAL, AND GOVERNANCE (ESG) CHALLENGES



on Anti-Black Racism and Black Inclusion in Higher Education since 2021













## **Contact us**

The Sustainability Hive MacKimmie Tower 116 2500 University Drive NW Calgary, AB, T2N 1N4

sustain@ucalgary.ca ucalgary.ca/sustainability

- (f) @ucalgarysustain
- @ucalgarysustain

